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Application No: 10554917 Version No: 2.0

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Total Errors: 0
No. of SeqIDs Defined: 87
Actual SeqID Count: 87

Error code	Error Description
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SEQUENCE LISTING

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<120> KINASES AND PHOSPHATASES

<130> 039386-2277

<140> 10554917

<141> 2009-03-30

<150> PCT/US04/09215

<151> 2004-03-24

<150> 60/528,750

<151> 2003-12-10

<150> 60/524,415

<151> 2003-11-20

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<151> 2003-08-12

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<151> 2003-06-05

<150> 60/469,441

<151> 2003-05-09

<150> 60/467,491

<151> 2003-04-30

<160> 87

<170> PatentIn version 3.5

<210> 1

<211> 83

<212> PRT

<213> Homo sapiens

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Ile	Asp	Val	Cys	Glu	Asn	Cys	His	Tyr	Pro	Ile	Val	Pro	Leu	Asp	Gly
			20					25					30		

Lys	Gly	Thr	Leu	Leu	Ile	Arg	Asn	Gly	Ser	Glu	Thr	Thr	Trp	Leu	Ser
		35					40					45			

Leu	Cys	Thr	Ala	Met	Ser	Pro	Leu	Thr	Thr	Glu	Ile	Trp	Ala	Leu	Arg
50						55					60				

Arg	Gly	Asn	Ser	Ser	Ala	Ser	Trp	Ser	Arg	Ala	Ala	Ser	Gly	Gly	Arg
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Arg Ser Pro

<210> 2

<211> 292

<212> PRT

<213> Homo sapiens

<400> 2

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Phe	Val	Met	Glu	Glu	Gly	Arg	Lys	Ala	Arg	Gly	Thr	Gly	Glu	Leu	Thr
			20					25					30		

Gln	Leu	Leu	Asn	Ser	Leu	Cys	Thr	Ala	Val	Lys	Ala	Ile	Ser	Ser	Ala
	35						40					45			

Val	Arg	Lys	Ala	Gly	Ile	Ala	His	Leu	Tyr	Gly	Ile	Ala	Gly	Ser	Thr
50						55					60				

Asn Val Thr Gly Asp Gln Val Lys Lys Leu Asp Val Leu Ser Asn Asp

65		70		75		80
Leu Val Met Asn Met Leu Lys Ser Ser Phe Ala Thr Cys Val Leu Val						
	85		90		95	
Ser Glu Glu Asp Lys His Ala Ile Ile Val Glu Pro Glu Lys Arg Gly						
	100		105		110	
Lys Tyr Val Val Cys Phe Asp Pro Leu Asp Gly Ser Ser Asn Ile Asp						
	115		120		125	
Cys Leu Val Ser Val Gly Thr Ile Phe Gly Ile Tyr Arg Lys Lys Ser						
	130		135		140	
Thr Asp Glu Pro Ser Glu Lys Asp Ala Leu Gln Pro Gly Arg Asn Leu						
	145		150		155	160
Val Ala Ala Gly Tyr Ala Leu Tyr Gly Ser Ala Thr Met Leu Val Leu						
	165		170		175	
Ala Met Asp Cys Gly Val Asn Cys Phe Met Leu Asp Pro Asp Asn Ser						
	180		185		190	
Ala Pro Tyr Gly Ala Arg Tyr Val Gly Ser Met Val Ala Asp Val His						
	195		200		205	
Arg Thr Leu Val Tyr Gly Gly Ile Phe Leu Tyr Pro Ala Asn Lys Lys						
	210		215		220	
Ser Pro Asn Gly Lys Leu Arg Leu Leu Tyr Glu Cys Asn Pro Met Ala						
	225		230		235	240
Tyr Val Met Glu Lys Ala Gly Gly Met Ala Thr Thr Gly Lys Glu Ala						
	245		250		255	
Val Leu Asp Val Ile Pro Thr Asp Ile His Gln Arg Ala Pro Val Ile						
	260		265		270	
Leu Gly Ser Pro Asp Asp Val Leu Glu Phe Leu Lys Val Tyr Glu Lys						
	275		280		285	
His Ser Ala Gln						
	290					

<210> 3

<211> 434

<212> PRT

<213> Homo sapiens

<400> 3

Met Ala Ser Pro Arg Glu Leu Thr Gln Asn Pro Leu Lys Lys Ile Trp
1 5 10 15

Met Pro Tyr Ser Asn Gly Arg Pro Ala Leu His Ala Cys Gln Arg Gly
20 25 30

Val Cys Met Thr Asn Cys Pro Thr Leu Ile Val Met Val Gly Leu Pro
35 40 45

Ala Arg Gly Lys Thr Tyr Ile Ser Lys Lys Leu Thr Arg Tyr Leu Asn
50 55 60

Trp Ile Gly Val Pro Thr Arg Glu Phe Asn Val Gly Gln Tyr Arg Arg
65 70 75 80

Asp Val Val Lys Thr Tyr Lys Ser Phe Glu Phe Phe Leu Pro Asp Asn
85 90 95

Glu Glu Gly Leu Lys Ile Arg Lys Gln Cys Ala Leu Ala Ala Leu Arg
100 105 110

Asp Val Arg Arg Phe Leu Ser Glu Glu Gly Gly His Val Ala Val Phe
115 120 125

Asp Ala Thr Asn Thr Thr Arg Glu Arg Arg Ala Thr Ile Phe Asn Phe
130 135 140

Gly Glu Gln Asn Gly Tyr Lys Thr Phe Phe Val Glu Ser Ile Cys Val
145 150 155 160

Asp Pro Glu Val Ile Ala Ala Asn Ile Val Gln Val Lys Leu Gly Ser
165 170 175

Pro Asp Tyr Val Asn Arg Asp Ser Asp Glu Ala Thr Glu Asp Phe Met
180 185 190

Arg Arg Ile Glu Cys Tyr Glu Asn Ser Tyr Glu Ser Leu Asp Glu Asp

195

200

205

Leu Asp Arg Asp Leu Ser Tyr Ile Lys Ile Met Asp Val Gly Gln Ser
210 215 220

Tyr Val Val Asn Arg Val Ala Asp His Ile Gln Ser Arg Ile Val Tyr
225 230 235 240

Tyr Leu Met Asn Ile His Val Thr Pro Arg Ser Ile Tyr Leu Cys Arg
245 250 255

His Gly Glu Ser Glu Leu Asn Leu Lys Gly Arg Ile Gly Gly Asp Pro
260 265 270

Gly Leu Ser Pro Arg Gly Arg Glu Phe Ala Lys Ser Leu Ala Gln Phe
275 280 285

Ile Ser Asp Gln Asn Ile Lys Asp Leu Lys Val Trp Thr Ser Gln Met
290 295 300

Lys Arg Thr Ile Gln Thr Ala Glu Ala Leu Gly Val Pro Tyr Glu Gln
305 310 315 320

Trp Lys Val Leu Asn Glu Ile Asp Ala Ser Tyr Glu Asp Leu Val Gln
325 330 335

Arg Leu Glu Pro Val Ile Met Glu Leu Glu Arg Gln Glu Asn Val Leu
340 345 350

Val Ile Cys His Gln Ala Val Met Arg Cys Leu Leu Ala Tyr Phe Leu
355 360 365

Asp Lys Ala Ala Glu Gln Leu Pro Tyr Leu Lys Cys Pro Leu His Thr
370 375 380

Val Leu Lys Leu Thr Pro Val Ala Tyr Gly Cys Lys Val Glu Ser Ile
385 390 395 400

Phe Leu Asn Val Ala Ala Val Asn Thr His Arg Asp Arg Pro Gln Asn
405 410 415

Val Asp Ile Ser Arg Pro Pro Glu Glu Ala Leu Val Thr Val Pro Ala
420 425 430

His Gln

<210> 4

<211> 240

<212> PRT

<213> Homo sapiens

<400> 4

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1			5						10					15	

Ser	Pro	Leu	Gly	Trp	Pro	Ser	Cys	Arg	Ser	Ile	Gln	Thr	Leu	Arg	Val
		20						25					30		

Leu	Ser	Gly	Asp	Leu	Gly	Gln	Leu	Pro	Thr	Gly	Ile	Arg	Asp	Phe	Val
		35				40						45			

Glu	His	Ser	Ala	Arg	Leu	Cys	Gln	Pro	Glu	Gly	Ile	His	Ile	Cys	Asp
50						55					60				

Gly	Thr	Glu	Ala	Glu	Asn	Thr	Ala	Thr	Leu	Thr	Leu	Leu	Glu	Gln	Gln
65					70				75					80	

Gly	Leu	Ile	Arg	Lys	Leu	Pro	Lys	Tyr	Asn	Asn	Cys	Trp	Leu	Ala	Arg
			85					90						95	

Thr	Asp	Pro	Lys	Asp	Val	Ala	Arg	Val	Glu	Ser	Lys	Thr	Val	Ile	Val
		100						105					110		

Thr	Pro	Ser	Gln	Arg	Asp	Thr	Val	Pro	Leu	Pro	Pro	Gly	Gly	Ala	Arg
	115						120					125			

Gly	Gln	Leu	Gly	Asn	Trp	Met	Ser	Pro	Ala	Asp	Phe	Gln	Arg	Ala	Val
130						135					140				

Asp	Glu	Arg	Phe	Pro	Gly	Cys	Met	Gln	Gly	Arg	Thr	Met	Tyr	Val	Leu
145					150					155					160

Pro	Phe	Ser	Met	Gly	Pro	Val	Gly	Ser	Pro	Leu	Ser	Arg	Ile	Gly	Val
			165						170					175	

Gln Leu Thr Asp Ser Ala Tyr Val Val Ala Ser Met Arg Ile Met Thr

180

185

190

Arg Leu Gly Thr Pro Val Leu Gln Ala Leu Gly Asp Gly Asp Phe Val
195 200 205

Lys Cys Leu His Ser Val Gly Gln Pro Leu Thr Gly Gln Asp Pro Gly
210 215 220

His His Gln Pro Cys Arg Glu Glu Ala Leu Cys Gly Ser Arg Leu Pro
225 230 235 240

<210> 5

<211> 199

<212> PRT

<213> Homo sapiens

<400> 5

Met Glu Glu Lys Thr Ser Arg Ile Lys Ala Ser Ile Pro Gln Phe Thr
1 5 10 15

Asn Ser Pro Thr Met Val Ile Met Val Gly Leu Pro Ala Arg Gly Lys
20 25 30

Thr Tyr Ile Ser Thr Lys Leu Thr Arg Tyr Leu Asn Trp Ile Gly Thr
35 40 45

Pro Thr Lys Val Phe Asn Leu Gly Gln Tyr Arg Arg Glu Ala Val Ser
50 55 60

Tyr Lys Asn Tyr Glu Phe Phe Leu Pro Asp Asn Met Glu Ala Leu Gln
65 70 75 80

Ile Arg Lys Gln Cys Ala Leu Ala Ala Leu Lys Asp Val His Asn Tyr
85 90 95

Leu Ser His Glu Glu Gly His Val Ala Val Phe Asp Ala Thr Asn Thr
100 105 110

Thr Arg Glu Arg Arg Ser Leu Ile Leu Gln Phe Ala Lys Glu His Gly
115 120 125

Tyr Lys Val Phe Phe Ile Glu Ser Ile Cys Asn Asp Pro Gly Ile Ile
130 135 140

Ala Glu Asn Ile Arg Gln Val Lys Leu Gly Ser Pro Asp Tyr Ile Asp
145 150 155 160

Cys Asp Arg Glu Lys Val Leu Glu Asp Phe Leu Lys Arg Ile Glu Cys
165 170 175

Tyr Glu Val Asn Tyr Gln Pro Leu Asp Glu Glu Leu Asp Arg Ser Ser
180 185 190

Thr Trp Ala His Ala Thr Trp
195

<210> 6

<211> 406

<212> PRT

<213> Homo sapiens

<400> 6

Met Glu Glu Lys Thr Ser Arg Ile Lys Val Phe Asn Leu Gly Gln Tyr
1 5 10 15

Arg Arg Glu Ala Val Ser Tyr Lys Asn Tyr Glu Phe Phe Leu Pro Asp
20 25 30

Asn Met Glu Ala Leu Gln Ile Arg Lys Gln Cys Ala Leu Ala Ala Leu
35 40 45

Lys Asp Val His Asn Tyr Leu Ser His Glu Glu Gly His Val Ala Val
50 55 60

Phe Asp Ala Thr Asn Thr Thr Arg Glu Arg Arg Ser Leu Ile Leu Gln
65 70 75 80

Phe Ala Lys Glu His Gly Tyr Lys Val Phe Phe Ile Glu Ser Ile Cys
85 90 95

Asn Asp Pro Gly Ile Ile Ala Glu Asn Ile Arg Gln Val Lys Leu Gly
100 105 110

Ser Pro Asp Tyr Ile Asp Cys Asp Arg Glu Lys Val Leu Glu Asp Phe
115 120 125

Leu Lys Arg Ile Glu Cys Tyr Glu Val Asn Tyr Gln Pro Leu Asp Glu
130 135 140

Glu	Leu	Asp	Ser	His	Leu	Ser	Tyr	Ile	Lys	Ile	Phe	Asp	Val	Gly	Thr	145	150	155	160
Arg	Tyr	Met	Val	Asn	Arg	Val	Gln	Asp	His	Ile	Gln	Ser	Arg	Thr	Val	165	170	175	
Tyr	Tyr	Leu	Met	Asn	Ile	His	Val	Thr	Pro	Arg	Ser	Ile	Tyr	Leu	Cys	180	185	190	
Arg	His	Gly	Glu	Ser	Glu	Leu	Asn	Ile	Arg	Gly	Arg	Ile	Gly	Gly	Asp	195	200	205	
Ser	Gly	Leu	Ser	Val	Arg	Gly	Lys	Gln	Tyr	Ala	Tyr	Ala	Leu	Ala	Asn	210	215	220	
Phe	Ile	Gln	Ser	Gln	Gly	Ile	Ser	Ser	Leu	Lys	Val	Trp	Thr	Ser	His	225	230	235	240
Met	Lys	Arg	Thr	Ile	Gln	Thr	Ala	Glu	Ala	Leu	Gly	Val	Pro	Tyr	Glu	245	250	255	
Gln	Trp	Lys	Ala	Leu	Asn	Glu	Ile	Asp	Ala	Gly	Val	Cys	Glu	Glu	Met	260	265	270	
Thr	Tyr	Glu	Glu	Ile	Gln	Glu	His	Tyr	Pro	Glu	Glu	Phe	Ala	Leu	Arg	275	280	285	
Asp	Gln	Asp	Lys	Tyr	Arg	Tyr	Arg	Tyr	Pro	Lys	Gly	Glu	Ser	Tyr	Glu	290	295	300	
Asp	Leu	Val	Gln	Arg	Leu	Glu	Pro	Val	Ile	Met	Glu	Leu	Glu	Arg	Gln	305	310	315	320
Glu	Asn	Val	Leu	Val	Ile	Cys	His	Gln	Ala	Val	Met	Arg	Cys	Leu	Leu	325	330	335	
Ala	Tyr	Phe	Leu	Asp	Lys	Ser	Ser	Asp	Glu	Leu	Pro	Tyr	Leu	Lys	Cys	340	345	350	
Pro	Leu	His	Thr	Val	Leu	Lys	Leu	Thr	Pro	Val	Ala	Tyr	Gly	Cys	Lys	355	360	365	

Val Glu Ser Ile Tyr Leu Asn Val Glu Thr Val Asn Thr His Arg Glu
370 375 380

Lys Pro Glu Asn Val Asp Ile Thr Arg Glu Pro Glu Glu Ala Leu Asp
385 390 395 400

Thr Val Pro Ala His Tyr
405

<210> 7
<211> 426
<212> PRT
<213> Homo sapiens

<400> 7
Met Glu Glu Lys Thr Ser Arg Ile Lys Ala Ser Ile Pro Gln Phe Thr
1 5 10 15

Asn Ser Pro Thr Met Val Ile Met Val Gly Leu Pro Ala Arg Gly Lys
20 25 30

Thr Tyr Ile Ser Thr Lys Leu Thr Arg Tyr Leu Asn Trp Ile Gly Thr
35 40 45

Pro Thr Lys Asp Asn Met Glu Ala Leu Gln Ile Arg Lys Gln Cys Ala
50 55 60

Leu Ala Ala Leu Lys Asp Val His Asn Tyr Leu Ser His Glu Glu Gly
65 70 75 80

His Val Ala Val Phe Asp Ala Thr Asn Thr Thr Arg Glu Arg Arg Ser
85 90 95

Leu Ile Leu Gln Phe Ala Lys Glu His Gly Tyr Lys Val Phe Phe Ile
100 105 110

Glu Ser Ile Cys Asn Asp Pro Gly Ile Ile Ala Glu Asn Ile Arg Gln
115 120 125

Val Lys Leu Gly Ser Pro Asp Tyr Ile Asp Cys Asp Arg Glu Lys Val
130 135 140

Leu Glu Asp Phe Leu Lys Arg Ile Glu Cys Tyr Glu Val Asn Tyr Gln
145 150 155 160

Pro Leu Asp Glu Glu Leu Asp Ser His Leu Ser Tyr Ile Lys Ile Phe
165 170 175

Asp Val Gly Thr Arg Tyr Met Val Asn Arg Val Gln Asp His Ile Gln
180 185 190

Ser Arg Thr Val Tyr Tyr Leu Met Asn Ile His Val Thr Pro Arg Ser
195 200 205

Ile Tyr Leu Cys Arg His Gly Glu Ser Glu Leu Asn Ile Arg Gly Arg
210 215 220

Ile Gly Gly Asp Ser Gly Leu Ser Val Arg Gly Lys Gln Tyr Ala Tyr
225 230 235 240

Ala Leu Ala Asn Phe Ile Gln Ser Gln Gly Ile Ser Ser Leu Lys Val
245 250 255

Trp Thr Ser His Met Lys Arg Thr Ile Gln Thr Ala Glu Ala Leu Gly
260 265 270

Val Pro Tyr Glu Gln Trp Lys Ala Leu Asn Glu Ile Asp Ala Gly Val
275 280 285

Cys Glu Glu Met Thr Tyr Glu Glu Ile Arg Glu His Tyr Pro Glu Glu
290 295 300

Phe Ala Leu Arg Asp Gln Asp Lys Tyr Arg Tyr Arg Tyr Pro Lys Gly
305 310 315 320

Glu Ser Tyr Glu Asp Leu Val Gln Arg Leu Glu Pro Val Ile Met Glu
325 330 335

Leu Glu Arg Gln Glu Asn Val Leu